NOTE V.

PALAEGYGE BUITENDIJKI, N. SP. PARASITIC ON PALAEMON CARCINUS FABR. FROM JAVA

BY

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(With 4 text-figures).

The Bopyrid described in the present paper was detected by my friend Mr. Buitendijk, when examining a lot of the large *Palaemon carcinus*, offered for sale on the passar (market) of Tandjong-Priok. He collected no less than thirteen specimens of this parasite, but I regret that the exact number of Palaemonidae examined by him is unknown to me. Thanks the careful investigations of Giard [1]), Bonnier [2]) and Max Weber [3]), it is well known that the Palaemonidae of the Malayan Archipelago are especially infested by members of the genus *Palaegyge*, containing Bopyridae characterized by having rudimentary uropods in the female and the segments of the pleon distinctly separated from each other in the male [4]). As far as I know, only seven species are hitherto described, found on six species of Palaemonidae, viz. *Palaegyge Borrei* and — *Weberi* (on

1) Giard et Bonnier, Contribution à l'étude des Bopyriens: Travaux de la Station Zoologique de Wimereux, tome V, 1887.

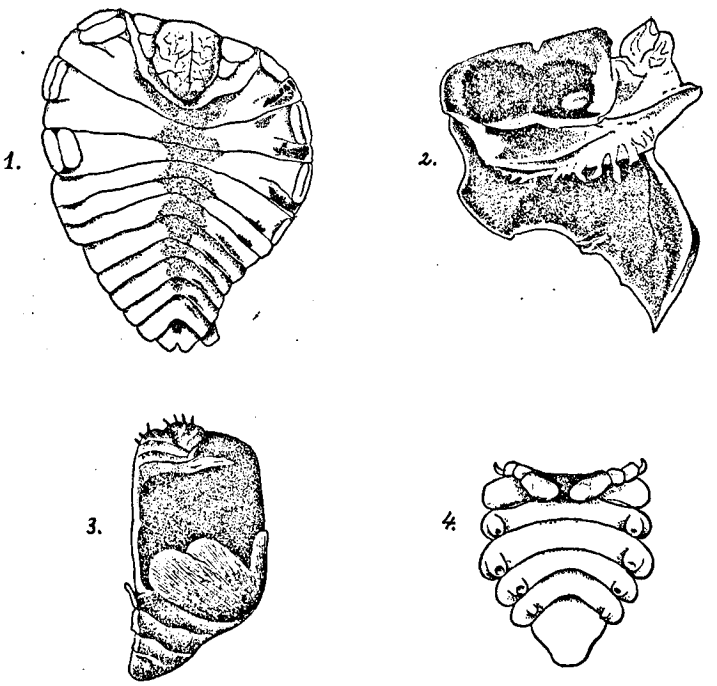
2) Jules Bonnier, Contribution à l'étude des Epicarides: les Bopyridae, ibidem, tome VIII, 1900.

3) Max Weber, Die Süsswasser-Crustaceen des Indischen Archipels: Zool. Ergebn. einer Reise in Niederl. Ost-Indien, Bd. II, 1891—92.

4) See also H. Richardson, Monograph of the Isopods of North America, Bull. U. St. Nat. Museum, no. 54, 1905.

Pal. dispar), — *Bonnieri* (on *Pal. lar*), — *fluviatilis* (on *Pal. lampropus*), — *de Mani* (on *Pal. pilimanus*), — *brevipes* (on *Pal. endehensis*), — *incerta* (on *Pal. bariensis*).

Female. The largest specimen has a length of 17 mm., its breadth being 18 mm. at the level of the third segment; the smallest one measures only 11 mm. in length and breadth.



Palaegyge Buitendijki: Fig. 1. Dorsal view of female. Fig. 2. Under surface of first oöstegite of the left side. Fig. 3. Left maxilliped. Fig. 4. Under surface of the pleon of the male.

It is therefore larger than any of the species hitherto recorded, *Palaegyge Bonnieri* and — *Borrei* attaining only a length of 14 and 15 mm.

The body is heartshaped with a slight concavity in its posterior region, either on its right or on its left side, probably depending on which side it was fixed to its host. The dorsal surface is nearly flat, with spots of

black pigment on the 2d, 3d, 4th, 5th, 6th and 7th somite along its concave border; also the head shows a narrow black stripe on both sides of its inferior part. The ventral surface, however, has larger and darker spots of pigment on the oöstegites of the 1st—5th pereiopode, lying on the same side as those of the dorsum. The head is cordiform, with its anterior margin slightly convex and its remaining part inclosed in the first somite, that is strongly bent forward, very narrow in the middle and enlarged laterally. Also the 2d, 3d and 4th somite have their lateral parts much broader and are there provided with an elliptical ovarian bosse, showing a pleural lamella of about the same shape. The 5th, 6th and 7th somite are laterally not much broader than in the middle, overlapping each other with their pleural parts; their ventral sides are roughened by parallel rugae. The segments of the pleon are distinctly separated from each other; the last one (6th) is triangular, with a rounded base, slightly emarginated in the middle.

The antennae are rudimental and could hardly be recognized; the inner ones seem to be composed of three joints, of which the both inferior ones are cylindrical and of about the same size, whereas the distal one is much smaller. The outer antennae seem to consist only of a single joint, of an obtuse conical shape. The beak with the mandibles and the second pair of maxillae have the usual shape.

The maxillipeds have an elongated quadrangular shape, with an incision at their inner border at about a third of their length; their surface shows three transverse, parallel folds beneath the articulation of the palp, that is furnished with four hairs along its inner margin. The inferior lamina of the head consists of a small pointed process in the middle and two larger lateral ones; the innermost of these is small, tongue-shaped, whereas the external one is ensiform. The brood-pouch is open, encircled by the five pairs of oöstegites; the four anterior pairs of these have a rounded quadrangular shape, whereas the last pair is long, ensiform, overlapping each other with their distal ends. The first

oöstegite has an other posterior lamella, situated more internally and separated from its anterior part by a fold; its posterior margin is concave and hook-like elongated externally. At the inner face of this lamina the fold is limited superiorly by a strong ridge, fringed with digitate processes. The pereiopods have the usual structure; like as in *Palaeg. Borrei* their basipodite at its external side is provided with a large, rounded protuberance beset with small spinous scales.

There are five pairs of pleopods, nearly entirely hidden under the pleon, only the last pair extends somewhat beyond its border at the right side; their exopodite and endopodite consist of a rounded triangular lamina, about of the same size, overlapping each other with their inferior part. The uropods are represented by two small tubercles, situated at the base of the last segment.

Male. Under the pleopods of nearly every female a male individual was found; its body, somewhat contracted in the middle, has a length of $3^1/_2$ mm. The head shows a pair of pigment-spots, the rudiments of the eyes. The pleon has only the four anterior segments distinctly separated from each other, each provided with a pair of small tubercles, the rudimentary pleopods; the fifth and sixth segment are fused, forming a heartshaped piece.

Leyden Museum, December 1909.